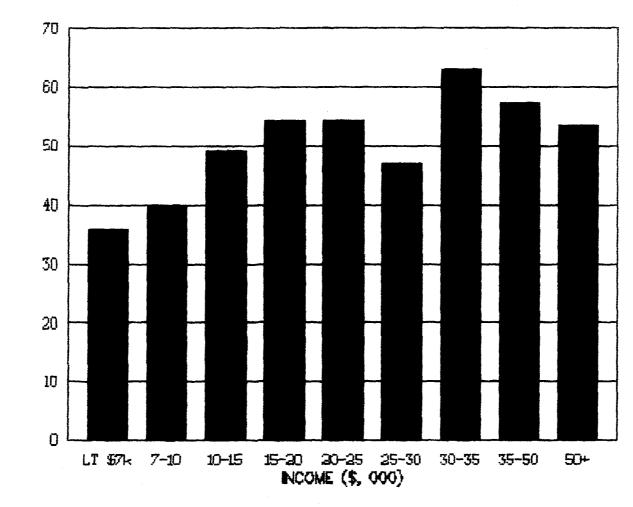
PERCENT WITH CABLE

FIGURE III-1 HOUSEHOLD INCOME AND CABLE TV SUBSCRIPTION



SOURCE: The Effects of Divestiture on Elderly and Low Income Consumers, American Association of Retired Persons, Consumer Federation of America, AT&T, Detailed Tabulations, August, 1986.

2. THE SUPPLY-SIDE

On the supply-side the natural monopoly characteristics of the technology along with its rapid development are crucial factors. On As a young, capital intensive, network industry, the naturally increasing cable subscriber base increases the market size, attracting new suppliers to the industry. Increasing penetration also spreads the fixed costs of a highly capital intensive industry over larger volumes, leading to declining unit costs.

Moreover, because cable is a high fixed cost industry, increases in penetration lead to declining unit costs. As volume goes up, profit per unit increases. Hence, constant prices can

³⁰ Webb, op. cit., specifically mentions geographic natural monopoly. Others, such as Eli Noam (Monopoly and Productivity in Cable Television (Columbia University, Graduate School of Business, Research Program in Telecommunications and Information Policy, October 24, 1984; "Economies of Scale in Cable Television: A Multiproduct Analysis," in Eli Noam, (Ed.), <u>Video Media competition:</u>
Regulation, Economics and Technology (New York: Columbia University Press, 1985) identify economies of scale and scope, but stop short of calling the industry a natural monopoly. Even those who argue against natural monopoly concede economies of scale (see Smiley, A.K., Direct Competition Among Cable Television System (Economic Analysis Discussion Paper, Department of Justice, June 5, 1985, "Regulation and Competition in Cable Television," Yale Journal of Regulation, 1990; Hazlett, T. W., "Duopolistic Competition in Cable Television: Implications for Public Policy," Yale Journal of Regulation, 1990). In the debate over regulation/deregulation, the question is whether the economics are large enough to preclude competition. For the purposes of establishing reasonable rates in the absence of competition, the important point is to recognize that economies of scale exist and to take them into account in setting rates.

yield higher returns, making price increases unnecessary to improve quality. The difference in cost between a forty percent penetration rate and a sixty percent penetration rate can be as high as fifty percent.³¹

Writing near the time of deregulation, Noam concluded the following about the dynamic nature of the technology.

They show productivity increases -- defined as reductions in production cost that are not due to changes in input costs -- resulting from economies of scale, technical vintage and maturity of operations... The effect of economies of scale is relatively small. Operating experience, i.e. "internal" innovation, on the other hand, has a much larger effect. By far the largest contribution is made by the "external" development of the technology, as expressed by the contribution of new vintages to cost reduction...

If cable systems were to compete head-on, a cost differential as large as we observe would all but assure that the older systems would be driven off the market, unless they can maintain a large difference in scale, or unless they have been operating for a substantial time.³²

Writing at about the same time, Webb, emphasized economies of channel capacity and density.

Services By Telephone Companies? (Santa Monica, Rand, 1990), Appendix G, shows the cost of a contemporary cable system with broadband backbone and coaxial feeder loop, of \$368 per home passed and \$614 per subscriber, at 60 percent penetration. By implication, a penetration rate of 40 percent would generate costs of \$920 (see also, Shooshan and Jackson, Measuring Cable's Market Power: Recent Developments, December 1988.

³² Noam, 1984, op. cit., at 14.

If 36 channels are to be provided, it is cheaper for one firm to operate a 36 channel system than for three to firms to operate 12-channel systems...

Most dramatic is the declining cost per subscriber of providing service in an area given a cable system of fixed channel capacity and length.

Cable systems appear to exhibit declining average total costs in terms of the number of channels provided, the size of the geographic area covered, and the number of subscribers served.³³

One of the most crucial basic supply-side characteristics of the industry is that over-the-air systems have proven to be ineffective competitors of cable systems. Consumers increasingly value cable for the specialized movie, sports, adult and cultural programming carried by cable. With its limited channel capacity and the cable industry's strategy of bundling network programming into larger packages, or forcing subscribers to buy access to the diverse programming of multi-channel offerings in basic rates, there is simply no way that over-the-air television can be seen as delivering a near enough substitute

³³ Webb, op. cit., at 58, 59, and 63.

James A. Ordover and Yale M. Braunstein, "Does Cable Television Really Face Effective Competition?," in <u>Competitive Issues in the Cable Television Industry</u>, Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, United States Congress, March 17, 1988, at 561; "Testimony of William B. Finneran, Chairman New York State Commission on Cable Television," in <u>Competitive Issues in the Cable Television Industry</u>, Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, United States Congress, March 17, 1988.

The 1989 TIO/Roper Report (1989), at 4.

to effectively check cable's market power.

Over-the-air stations are caught between a rock and a hard place. With limited channel capacity, they cannot compete with the specialized and diverse programming cable offers. Yet, as cable becomes more pervasive, the over-the-air networks need to be part of the basic package to preserve their audience.³⁶ However, once they are on the cable, they are at the mercy of the operators for channel location. They can be easily disadvantaged by bad location.³⁷

The fact that over-the-air television might provide some modest pricing restraint in some high density, high cost markets, is not the answer to protecting consumers and Congress rightly rejected this as the solution to the general and pervasive problem of market power in the industry. Moreover, to the extent that over-the-air television has restrained cable rates in those limited number of markets, Congress crafted a regulatory regime which will take cognizance of that fact. The Commission's analysis of cost and its examination of competitive systems should easily discover where market power has not been abused.

³⁶ Chapman, op. cit.

³⁷ See <u>Competitive Issues in the Cable Television Industry</u>, pp. 657-658.

³⁸ Senate Committee Report at 11-12; House Committee Report at 30-34.

It should also be recognized that other forms of entertainment are not supply-side alternatives to cable TV.

Video rentals and movie theatres are not adequate supply-side alternatives. The transaction costs of both are much higher than cable.

Only alternative delivery mechanisms, such as wireless cable and, perhaps, overbuilding of franchise territories present a credible threat. Since these have failed to proliferate, we are left with a situation in which cable market power is restrained only by a weak demand-side. Antitrust authorities would never accept an antitrust defense that said, "there is no competition on the supply-side, but we are charging only the limit price on the demand-side." Congress was promised head-to-head competition and we doubt it would ever have deregulated the industry if it had been told that the only thing restraining cable prices was going to be the limits of consumer tolerance for price increases without viable economic alternatives. Reregulation is a recognition that effective competition has failed to develop.

³⁹ For a discussion of the strategy and effects of limit pricing see Sherer, op. cit., at 232-258.

Science and Transportation, United States Senate, February 16-17, 1983.

C. MARKET STRUCTURE OF THE CABLE INDUSTRY

While these basic conditions affect market structure, so too does public policy and private action. Key structural characteristics in the cable industry are a small number of buyers and sellers at a number of key points in the production process. These include programming and local distribution.

There are also barriers to entry and vertical integration which impede competition. The local franchising process, and the 1984 Cable Act which all but turns the franchise into a perpetual right, are also crucial basic conditions.

Through a series of mergers and acquisitions, the industry has become concentrated horizontally and vertically. As noted by Congress, 1 this concentration and vertical integration is of special concern in an industry which produces goods and services that have not only economic, but also cultural and political significance. Cable operators who control access to large numbers of viewers can extract concessions from programmers who

⁴¹ Senate Committee Report at 24-34; House Committee Report at 40-43; and House floor debate on the Tauzin amendment, which became § 628 of the Act. <u>See</u> 138 Cong. Rec. H (daily ed. July 23, 1992).

⁴² The political and cultural importance of mergers in media industries is noted in the Testimony of George E. Garvey, Subcommittee on Economic and Commercial Law, Committee on the Judiciary, U.S. House of Representatives, March 14, 1989, at 5. See also, Peter L. Kahn, "Media Competition in the Marketplace of Idea," 39 Syracuse L. Rev. 737 (1988).

need to reach a large audience.⁴³ Because they have market power over consumers, the multiple systems operators (MSO) realize this market power as excess profits.

Furthermore, although this concentration is evidenced even at the national level, the nature and structure of the industry is dominated by its monopolistic underpinnings at the point-of distribution. Less than 1 percent of cable subscribers are served by more than one multi service operator. 5

Monopoly power can also be exercised by companies that control the supply of very popular programming. These powerful programmers can extract concession from large cable operators, who rely on these programs to attract viewers, by manipulating prices and program availability. Again, because of market power at the point-of-sale, the costs of these anti-competitive strategies are passed forward to consumers.

⁴³ Sylvia M. Chan-Olmsted and Barry L. Litman, "Antitrust and Horizontal Mergers in the Cable Industry," <u>Journal of Media Economics</u>, Fall, 1988, at 9-10; Ordover and Braunstein, op. cit. at 574.

⁴⁴ Chan-Olmstead and Litman, op. cit; Ordover and Braunstein, op. cit.

⁴⁵ "Testimony of Gary R. Chapman, on Behalf of the National Association of Broadcasters," in <u>Competitive Issues in the Cable Television Industry</u>, Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, United States Congress, March 17, 1988.

While one might hypothesize a set of conditions in which this bilateral monopoly operated in the public interest, that has not been the case in the cable industry. The shared interest of cable operators, with their local monopolies and, programmers, with their market power through production, has inflated cable rates. Local markets at the distribution level and vertical integration at the local and national levels constitute the areas of concern and arenas of potential anti-competitive abuse. The ability to impede competition rests at the level of production and programming in efforts to increase penetration of its services through exclusion of competing programming. The ability to impede competition rests at the local level vis-a-vis other modes of delivery.

One reason that so few instances of head-on competition exists -- known in the industry as "overbuilds" -- is because existing operators are not challenged by competitive entry and are instead protected by legal barriers such as <u>de facto</u> exclusive franchises and preferred rights to pole attachment.

When a contesting of an existing market does not materialize, other policies may have to reduce the differential in productivity trends, such as franchising contracts that have built-in innovation requirements linked to the rate of outside technology, or rate setting formulas which provide operators with

⁴⁶ The importance of taking cooperative arrangements and other relationships into account in assessing the effects of market structure has been emphasized in the context of merger analysis (see J. A. Ordover, A. O. Sykes, and R.D. Willig, "Herfindahl Concentration, Rivalry, and Mergers," <u>Harvard Law Review</u>, 95 (1982).

incentives for productivity gains.47

The advantages of integration of transmission and programming to the incumbents are therefore not simply an extension of local distribution power vertically into the programming stage, but also the economies of joint operation. 48

The empirical evidence of these market structural trends and problems is quite clear. Under deregulation, the cable industry rapidly became dominated by a small oligopoly of interconnected vertically integrated firms. A number of authors have expressed great concern about the increasing trends of concentration in the industry.⁴⁹

The largest cable operator, Tele-Communications Inc. (TCI), accounts for almost one-quarter of the market. The second largest firm (Time/Warner) represents over one-seventh of the cable market. Table III-1 shows the trend in cable concentration.

The pattern of joint ownership has dramatically increased

⁴⁷ Noam, 1984, op. cit., at 14-15.

⁴⁸ Noam, 1985, op. cit., at 6.

⁴⁹ Garvey, op. cit., Ordover and Yale, op. cit., Chan-Olmsted and Litman, op. cit.

Testimony of Jack Valenti, President Motion Picture Association of America, <u>Subcommittee on Telecommunications and Finance</u>, <u>United States House of Representatives</u>, May 11, 1988; Cable Vision, <u>Top 100 MSO's</u>, "Cable Rate Hikes Spreading," <u>Competitive Issues in the Cable Television Industry...</u>

TABLE III-1 TRENDS IN CABLE CONCENTRATION

(NATIONAL LEVEL CONCENTRATION RATIOS)

YEAR CONCENTRATION RATIOS

	FOUR FIRMS		. EIGHT FIRMS		
	UNADJUSTED	ADJUSTED FOR JOINT OWNERSHIP	UNADJUSTED	ADJUSTED FOR JOINT OWNERSHIP	
1969	16.3		26.7		
1971	21.7		31.6		
1973	27.2		40.3		
1975	26.4		38.1		
1977	23.1		36.5		
1979	24.0		36.5		
1981	27.3		40.9		
1985	29.4		43.5		
1987	27.7		39.4		
1988 (1)	27.6	35.7	39.4	46.7	
1988 (2)		45.8		57.0	

SOURCES: Sylvia M. Chan-Olmsted and Barry R. Litman, "Antitrust and Horizontal Mergers in the Cable Industry," <u>Journal of Media Economics</u>, Fall, 1988, at 8, 9, 19, for all estimates except 1988 (2). <u>Motion Picture Association of America</u>, for 1988 (2).

the concentration in the industry measured by the four and eight firm concentration ratios. If joint ventures and interconnections through either cable operations or programming are taken into account, TCI's market share rises to over 30 percent and the industry, even at the national level must be categorized as highly concentrated.⁵¹

Because cable systems do not compete head-to-head, the concern about horizontal concentration stems primarily from monopsony power in programming and the pricing strategies applied by cable operators. As cable systems become larger, they can threaten to refuse to carry certain programming, if they are not given exclusive or favorable distribution terms. Without comparable viewing packages available to the public, competitive market forces are not strong enough to pressure hard bargaining between independent cable operators or to threaten integrated

The Hirschman-Herfindahl Index (HHI) is used by the Department of Justice in its <u>Merger Guidelines</u> () to assess the impact of mergers. For cable operators at the national level, the industry index was just under 1,000 after the Time/Warner merger. However, arguing that interconnections between firms reinforces their mutuality of interest and counting these as added market share for the dominant firm raises the HHI to over 2100.

⁵² On the cable industry see Ordover and Braunstein, op. cit.; Ordover and Braunstein, op. cit. For more general arguments see Thomas G. Krattenmaker and Steven C. Salop, "Anticompetitive Exclusion: Raising Rivals' Cost to Achieve Power Over Prices," The Yale Law Journal, 92:2 (1986); J. A. Ordover, A. O. Sykes, and R. D. Willig, "Nonprice Anticompetitive Behavior by Dominant Firms Toward the Producers of Complementary Products," in Franklin M. Fisher (Ed.), Antitrust and Regulation (Cambridge: MIT Press, 1985).

programmer/operators with loss of market share sufficient to drive prices down.

Although recent antitrust implementation has generally not challenged vertical integration, concern about vertical integration is deeply rooted in the antitrust law. There is a growing body of theoretical and empirical analysis which has reinvigorated the concerns about the anti-competitive impacts of vertical integration, especially in the cable industry.⁵³

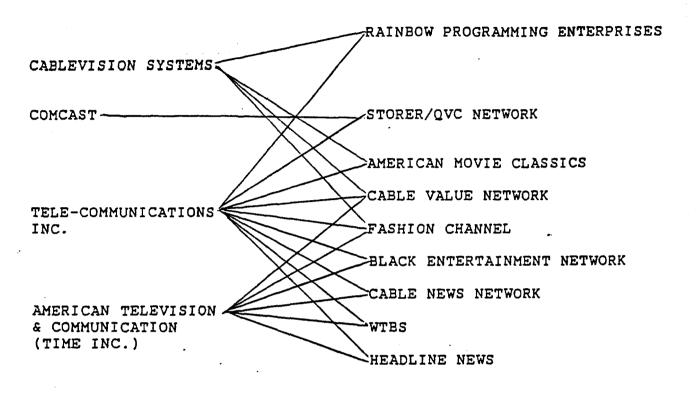
Vertically integrated cable companies seek to reinforce their market power in programming and the monopoly at the point of distribution, enhancing their ability to increase producer surplus. In the cable industry, vertical integration has been combined with horizontal concentration and a vigorous campaign of anticompetitive actions to ensure market power at the point-of-sale.

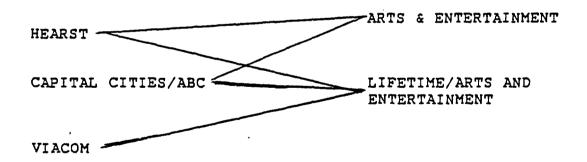
The two dominant firms are also thoroughly interconnected through a series of joint ventures (see Figure III-2). With independent sources of market power, they can avoid competing

On the cable industry see Ordover and Braunstein, op. cit. or more general arguments see Krattenmaker, T.G. and S. C. Salop, "Anti-competitive Exclusion: Raising Rivals' Costs to Achieve Power Over Prices," The Yale Law Journal, 92:2 (1986); Ordover, J., A. O. Sykes and R.D. Willig, "Non-price Anti-Competitive Behavior by Dominant Firms Toward the Producers of Complementary Products," in F. M. Fisher (Ed.), Antitrust and Regulation (Cambridge: MIT Press, 1985).

FIGURE III-2

JOINT VENTURES IN PROGRAMMING AMONG MAJOR CABLE INDUSTRY FIRMS





NOTES AND SOURCE: Only joint ventures are shown, wholly owned programs are not shown, but are counted in Exhibit 2 in the appropriate column. "Testimony of Jack Valenti, President of the Motion Picture Association of America," <u>Subcommittee on Telecommunications and Finance, Energy and Commerce Committee, United States House of Representative, May 11, 1988; "Vertical Integration," in <u>Competitive Issues in the Cable Television Industry</u>, Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, United States Congress, March 17, 1988, pp. 416-417.</u>

head-to-head in the marketplace by maintaining exclusive franchises and exclusive distribution of programming. Joint ventures become a mechanism for enhancing market power and creating larger barriers to entry for potential competitors.

As the number of competing programmers declines, the possibility of cartel pricing is dramatically enhanced. With vertical integration, the task of entry becomes even more formidable. One must simultaneously enter the programming and cable operation segments as the joint ventures of vertically integrated firms proliferate.

Concentration, interconnection and vertical integration enhance market power through their potential as a trigger, or by creating the conditions, for impeding the ability of competitors to have access to vital inputs. Two strategies to accomplish this are holding a bottleneck and real foreclosure.

Clearly, the franchise nature of cable systems has an element of bottleneck in it. This would provide the merged firm with the capacity to act against suppliers of programming. Given the franchise monopoly and market power over distribution, control over programming becomes a critical problem. Raising the

⁵⁴ Krattenmaker and Salop, op. cit., at 238-240.

⁵⁵ Krattenmaker and Salop, op. cit., at 234-238.

price of this crucial input or otherwise manipulating the terms and conditions of its sale to disadvantage competitors becomes profitable when there are subscribers subject to market power.

Many cable operators, in concert with their programmerowners, have engaged in vigorous anticompetitive actions to
prevent head-to-head competition (which is described pejoratively
in the industry as "overbuilding"). 56 Legal resistance to
overbuilding is pervasive. Potential competitors have been
thwarted by cable operator-programmers denying them access to
consumers and programming by overcharging for or restricting the
use of programming that is made available.

A similar pattern typifies the response to close substitutes. Competition from close substitutes could be provided by proven technologies such as wireless, or satellite dishes. These have been resisted by a variety of tactics including refusals to deal, exclusivity arrangements and manipulation of terms and conditions.

Efforts to impose or obtain exclusive arrangements have become ever present controversies in the industry including efforts to prevent competing technologies from obtaining

⁵⁶ The concern about overbuilding among MSOs and some of the efforts to prevent it are mentioned in <u>Competitive Issues in the Cable Television Industry</u>, at 152-157.

programming, as well as to prevent competition from developing within the cable industry. ⁵⁷ Price discrimination against competitors and other strategies, such as placing programming of competitors at a disadvantageous position on the dial have also been evident in recent years. ⁵⁸

Allegations of anti-competitive cable practices are not limited to industry critics. The practices within the industry became so bad that even major players became involved in formal protests. Viacom and its affiliates, a group not interconnected significantly with the top two cabals in the industry, filed an antitrust lawsuit against the largest chain of affiliated competitors in its New York territory -- Time, HBO, ATC, and Manhattan Cable. Specifically, Viacom claimed that Time, et.

⁵⁷ HBO, a subsidiary of Time, played a key role in the effort to prevent TVRO operators from obtaining programming (see Chan-Olmsted, op. cit., at 11), and the effort to sell overbuild insurance (Competitive Issues in the Cable Television on Industry, Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, United States Congress, March 17, 1988, at 127, 152-174.

Time appears to have stayed out of the channel bumping controversy (see <u>Competitive Issues</u> in the <u>Cable Television Industry</u>, Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, United States Congress, March 17, 1988, at 657-658), but has been particularly active in the refusals to provide programming or in price discrimination (<u>Competitive Issues in the Cable Television Industry</u>, Subcommittee on Antitrust, Monopolies and Business Rights, Committee on the Judiciary, United States Congress, March 17, 1988, at 118-122).

^{5°} Viacom Intl. and Showtime Networks Inc., v. Time Inc., HBO, ATC and Manhattan Cable Television, Inc., 89 civ. 3139, U.S. District Court, (S.D., N.Y.), 1989. This suit was recently settled for more than \$355 million. Robichaux, "Viacom to Report Quarterly Rebound on Cable Operation," Wall Street Journal, Oct. 22, 1992.

al.:

... violated and continue to violate the federal antitrust laws by engaging in an integrated series of predatory and exclusionary acts and strategies designed to increase the costs of their rivals, raise barriers to entry and expansion, and otherwise entrench themselves as monopolists by anticompetitive conduct, injuring the competitive process and, ultimately, consumers. 60

Concentration, vertical integration and the weak market forces embedded in the basic conditions of the industry are highly conducive to the abuse of market power. Since deregulation, the industry has been typified by anti-competitive and anti-consumer conduct. Pricing practices and system performance, which are the key considerations of the rate regulation provisions in the Act, are discussed in the next section.

⁶⁰ Viacom, op. cit.

IV. SYSTEM PERFORMANCE BEFORE AND AFTER DEREGULATION

Unfortunately, when cable systems were deregulated in 1984 competition did not develop. The result has been significant shortcomings in market performance including excessive price increases under deregulation and the misallocation of resources. Rather than stimulated innovation and declining prices, rates began to rise excessively and resources were inefficiently allocated after deregulation. The benefits of increasing size and quality -- cable's historical developmental pattern -- were still evident, however they were accompanied by monopoly rents.

This Section reviews the performance of the cable industry before and after deregulation. First, by showing that the industry expanded rapidly prior to deregulation, with declining real prices, we demonstrate that rate regulation is not inconsistent with Congress' desire to have an expanding industry. Second, by showing that market power has been abused in the industry, we demonstrate that rate reductions are necessary and will not interfere with the sound development of the industry. Third, we briefly discuss some of the most recent efforts by the cable industry to obscure these basic facts.

⁶¹ Glenn B. Manishin, "Antitrust and Regulation in Cable Television: Federal Policy At War With Itself," <u>Cardozo Arts & Entertainment Law Journal</u>, 6:1 (1987).

A. AN OVERVIEW OF EXPANSION

The data graphed in Figures IV-1, IV-2, IV-3 and IV-4 support our view of the industry. Table IV-1 shows changes in the cable industry from 1975 through 1992 in order to compare pre- and post-deregulation trends. The specific, sub-periods presented are chosen in response to industry arguments, which will be discussed below.

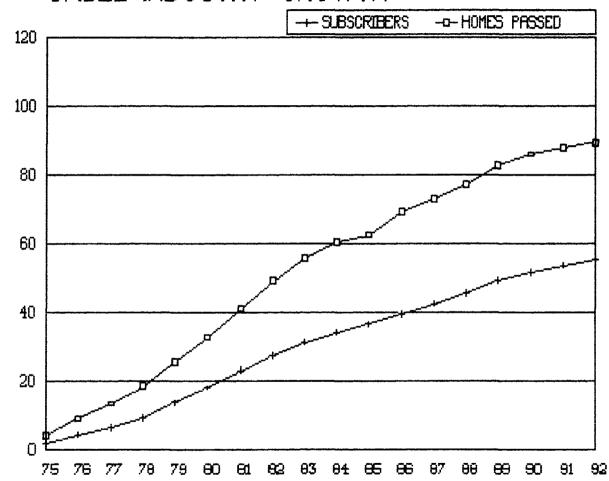
During the period from 1975 to 1984 the increase in the potential market for programming under regulation was tremendous. From 2 million subscribers in 1975, cable systems grew to almost 35 million in 1984 (the year in which rate deregulation was allowed and promoted by Congress, and deregulatory expectations changed within the industry).

From 1975 to 1981 the number of homes passed and penetration rates grew rapidly. On an annual basis, homes passed increased by 46 percent per year and subscribers increased by 49 percent per year. Channel availability increased by almost 10 percent per year. This was a period of sharply declining real prices for cable service and moderately rising income. By these measures,

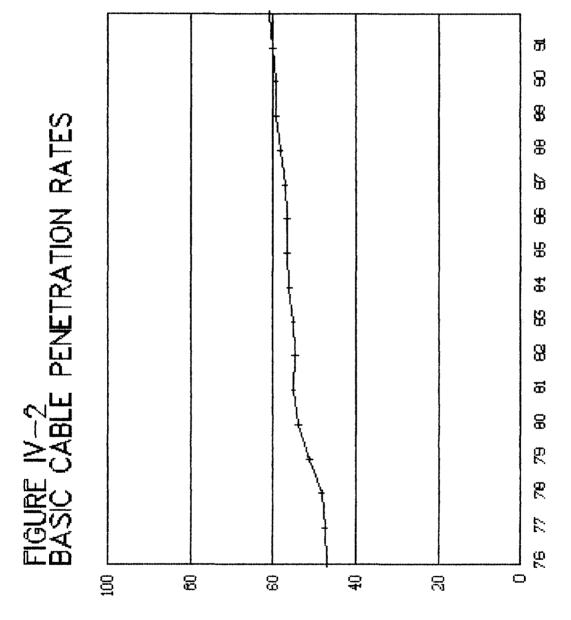
All references to cable industry statistics are from Paul Kagan Associates, Inc., <u>Cable TV Master Database</u> and <u>Kagan Media Index Historical Database</u>, various issues, and <u>Kagan Media Index</u>, December 24, 1991. Household income is from U.S. Bureau of the Census, <u>Current Population Reports</u>, series P-60, various issues. Inflators are from U.S. Bureau of Labor Statistics, <u>Monthly Labor Review</u>, various issues.

FIGURE IV-1 MACRO INDICATORS OF CABLE INDUSTRY GROWTH

42



PERCENT OF HOMES PASSED



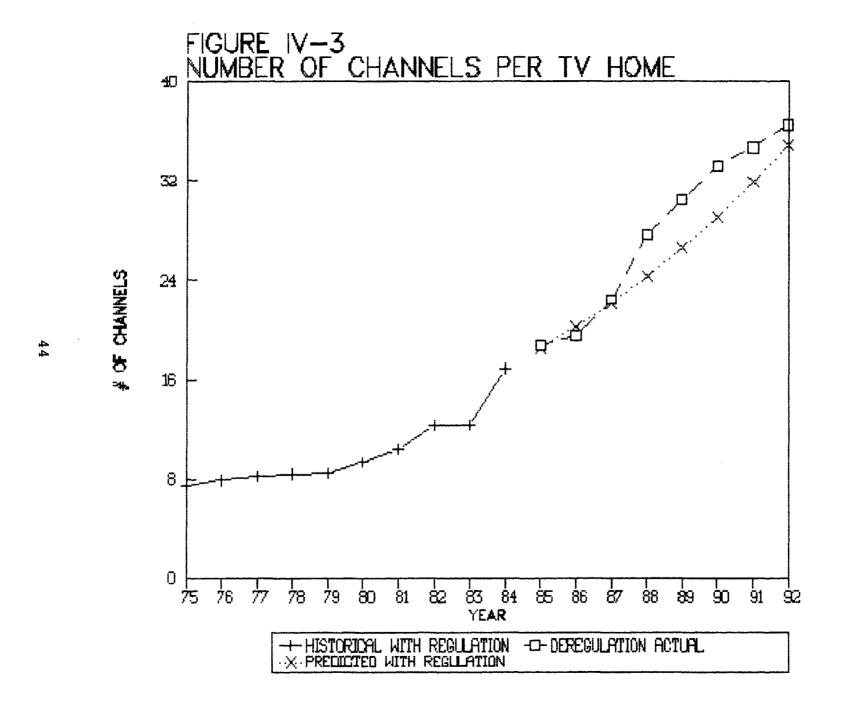


FIGURE IV-4
REAL CABLE PRICES
COMPARED TO REAL INCOME

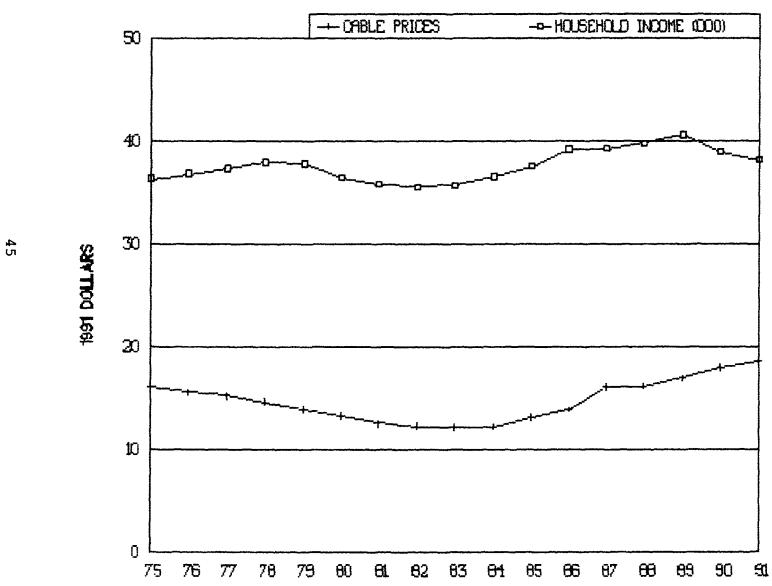


TABLE IV-1
INDUSTRY PERFORMANCE IN SELECTED PERIODS BEFORE
AND AFTER DEREGULATION

		ABSOLUTE VA		COMPOUND ANUAL CHANGE			
YEAR	SUBS	HOMES CHNL PASSED	S REAL PRICES (\$1992)	SUBS	HOMES PASSED	CHNLS	REAL PRICES
1975	1.98	4.22 7.5	16.20				
1981	23.00	41.20 10.4	11.97	50.40	46.19	5.60	(4.92)
1984	34.20	60.52 16.9	12.11	14.17	13.68	17.57	.39
1989	49.31	82.82 33.2	16.71	7.57	6.47	14.46	6.65
1992	55.58	89.40 36.5	18.85	4.02	2.58	3.21	1.70

SOURCE: Kagan Associates, Inc. <u>Cable TV Master Database</u>, Kagan <u>Media Index Historical Database</u>, various issues, and <u>The Kagan Media Index</u>, December 24, 1991.